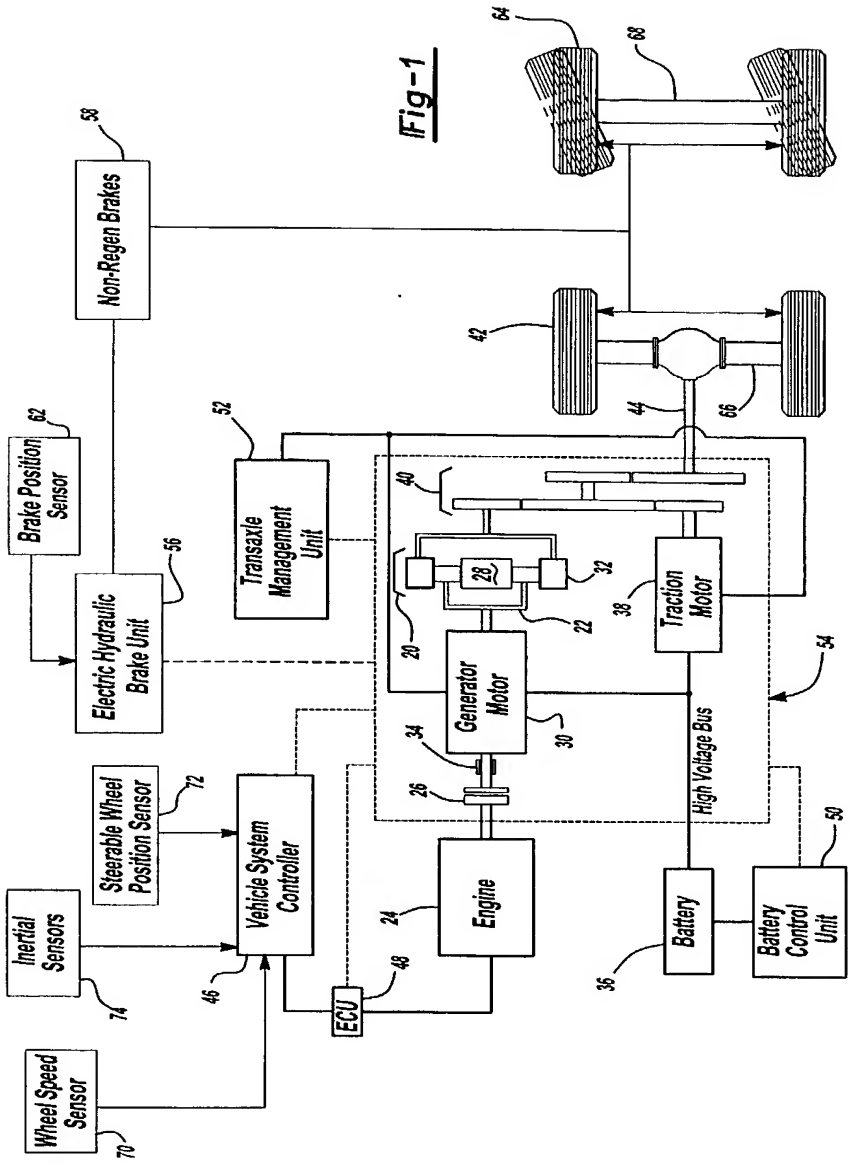
Fig-1


64
68
58
Non-Regen Brakes
42
44
66
62
Brake Position Sensor
52
Transaxle Management Unit
40
56
Electric Hydraulic Brake Unit
28
32
38
Traction Motor
20
22
Generator Motor
30
54
34
26
High Voltage Bus
72
Steerable Wheel Position Sensor
Vehicle System Controller
24
Engine
50
Inertial Sensors
46
48
ECU
Battery
Battery Control Unit
36
74
Wheel Speed Sensor
70

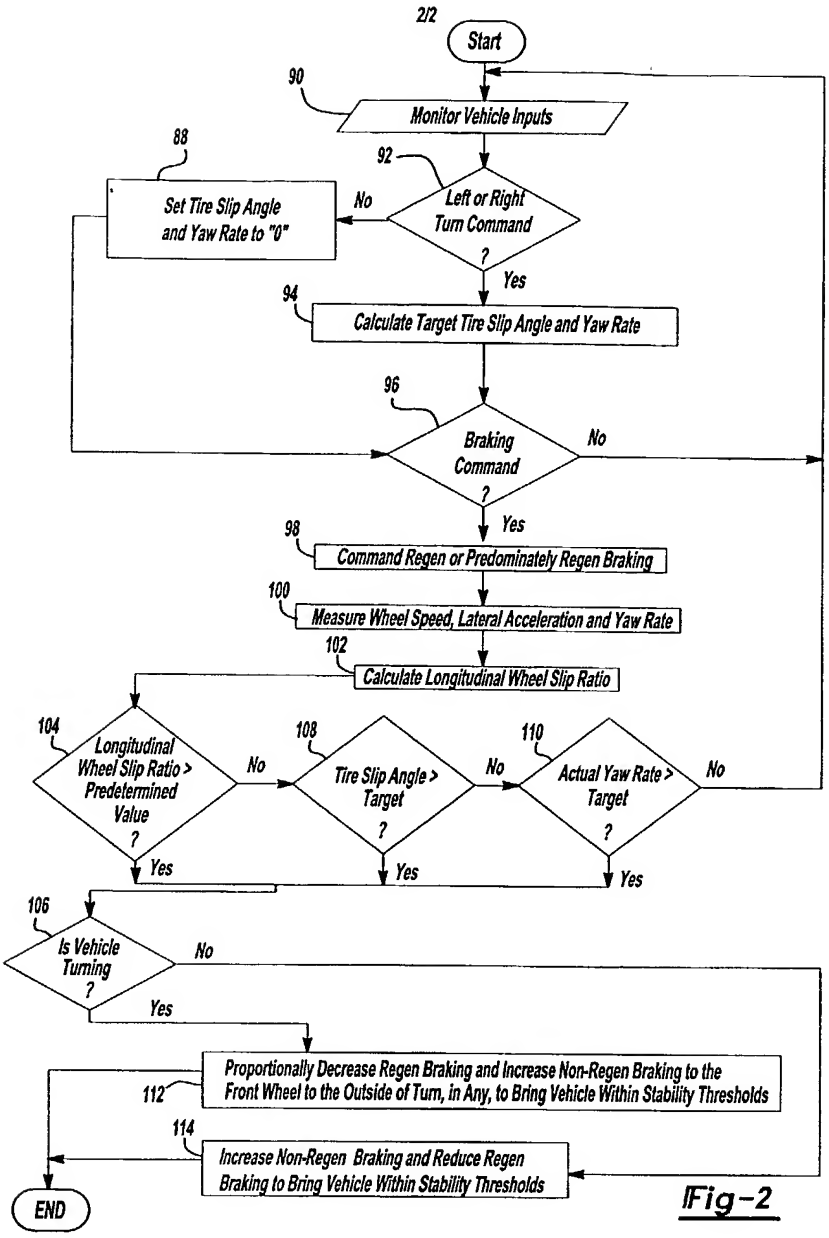

2/2
Start
90
Monitor Vehicle Inputs
88
92
Set Tire Slip Angle and Yaw Rate to "0"
No
Left or Right Turn Command ?
Yes
94
Calculate Target Tire Slip Angle and Yaw Rate
96
Braking Command ?
No
Yes
98
Command Regen or Predominately Regen Braking
100
Measure Wheel Speed, Lateral Acceleration and Yaw Rate
102
Calculate Longitudinal Wheel Slip Ratio
104
Longitudinal Wheel Slip Ratio > Predetermined Value ?
No
Yes
108
Tire Slip Angle > Target ?
No
Yes
110
Actual Yaw Rate > Target ?
No
Yes
106
Is Vehicle Turning ?
No
Yes
112
Proportionally Decrease Regen Braking and Increase Non-Regen Braking to the Front Wheel to the Outside of Turn, in Any, to Bring Vehicle Within Stability Thresholds
114
Increase Non-Regen Braking and Reduce Regen Braking to Bring Vehicle Within Stability Thresholds
END

Fig-2